CrossMark

ORIGINAL ARTICLE

Developing a knowledge base for crime prevention: lessons learned from the British experience

Nick Tilley[1] · Gloria Laycock[1]

Abstract   During the past 20 years, there have been several initiatives, led by the British government, to improve crime prevention by informing policy and practice with research. Two in particular stand out for the scale of the investment: The first was the establishment of the Crime Reduction Programme (CRP) in 1999. The CRP was supposed both to be based on what was already known from research and also to improve the evidence base and was scheduled to run for a decade. The CRP involved an unprecedented financial commitment to improving the knowledge base of crime prevention. The second was the establishment of the What Works Centre for Crime Reduction (WWCCR) in 2013. The WWCCR attempts both to distil findings from high quality research on what works in crime reduction in a form that would be readily accessible to and useable by decision-makers, and to encourage original research to improve the knowledge base. We touch more briefly also on the creation of the National Police Improvement Agency in 2007 and its successor body, the College of Policing in 2013. The core mission of both has been to professionalise policing (including police efforts to reduce crime) by making policing more evidence based, and the College of Policing has been home to WWCCR. This paper will provide a critical account of these major efforts to bring evidence to crime reduction and discuss lessons that can be learned from their experience.

Keywords   Crime Reduction Programme · What Works Centre · Evidence-based crime reduction · Policing

✉ Nick Tilley
    n.tilley@ucl.ac.uk

[1]   UCL Jill Dando Institute, London, UK

Introduction

The first issue of *Crime Prevention and Community Safety* appeared in 1999. Its publication reflected the growing interest in the subject matter in both policy and research terms. As Rob Mawby put it in his opening editorial in the first issue:

> *Crime Prevention and Community Safety: An International Journal* is a new journal with a refreshingly new philosophy. It is policy-oriented, with a comparative and theoretical underpinning which gives it a vitally critical edge. As the 'nothing works' philosophy of the 1970s and 1980s has gradually given way to a renewed optimism, crime prevention has been viewed by many as the way forward. While it may, in theory, be true that all criminology implicitly addresses crime prevention, in practice criminal justice systems world-wide have been geared towards reacting to crime after the event, rather than preventing it before it occurs. A shift in resources is thus seen as a realistic approach. Shifting the emphasis towards prevention, through multi-agency partnerships and community involvement, in Britain illustrated most recently through the 1998 Crime and Disorder Act, is applauded by many as the rediscovery of the holy grail. (Mawby 1999: 7)

There has been an avalanche of research relating to crime prevention since the foundation of the journal. Looking at Google Scholar, up until the end of 1998, 206,000 hits can be found for 'crime prevention'. From that date until the time of writing (27 June 2018) a further 945,000 hits can be found. This gives a rough idea of the expansion.

This paper reflects on some targeted efforts to improve the knowledge base in the 20 years since the inauguration of the journal. What have we learned over that period about major initiatives to foster the creation and use of a research-informed knowledge base for crime prevention and community safety?

It is important to acknowledge at the start that much more has been done both nationally and internationally than we can discuss in a short article. Our coverage is very partial. *Crime Prevention and Community Safety* has been avowedly international in its focus. We focus on the UK here. Moreover, even within the UK there have been and continue to be diverse initiatives relating to crime prevention research, policy and practice.

We focus mainly on two large initiatives that have been taken to try to bring research findings and research activity to crime prevention in the past 20 years, although we also discuss very briefly two other initiatives that put the second of the two major efforts we focus on in context. We have picked the two examples we use here in part because they are major and in part also because we were both quite heavily involved in them. The upside of this is that we know them well from the inside. The downside is that our treatment may be biased. Readers beware!

We first discuss the Crime Reduction Programme. We go on briefly to refer to the National Policing Improvement Agency (NPIA) and the College of Policing (CoP) as relevant contextual developments. Lastly we look in a little more detail at the What Works Centre for Crime Reduction (WWCCR). We conclude with some

comments on what might better be done in future to bring strong and relevant evidence to improving the effectiveness of crime prevention policy and practice.

The Crime Reduction Programme

The Home Office Crime Reduction Programme (CRP) was launched in Spring of 1999 and was expected to run over 10 years, although in the event was terminated in March 2002. In 1999, as Fig. 1 shows, crime was already beginning to fall. However, at that time what has turned out to be the start of a long-term drop was assumed to be a temporary lull, so investment in crime prevention was deemed justifiable.

The CRP was described by Homel et al. (2004) as 'an evidence-based policy programme' to tackle crime and disorder, and as such was the first of its kind. Its three goals were:

1. To achieve a sustained reduction in crime
2. To improve and mainstream knowledge and best practice
3. To maximise the implementation of cost-effective crime reduction activity.

Crime prevention was widely defined to include early intervention, crime in communities, the work of the police and probation services, sentencing practices, offender treatment programmes and imprisonment.

As Maguire (2004) put it,

On the face of it, the Crime Reduction Programme, for which £400 million of public money was earmarked….represents the most comprehensive systematic
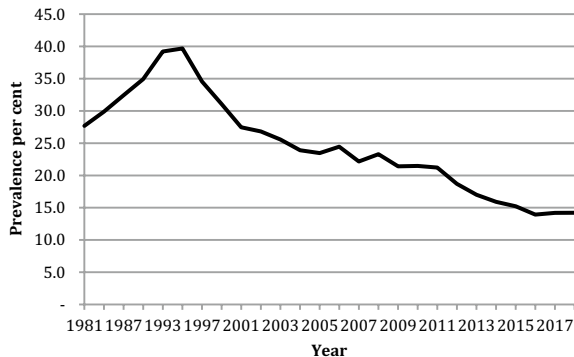
Fig. 1 Trends in CSEW percentages of households/adults who were victims once or more (prevalence risks) from year ending December 1981 to year ending December 2017. *Note*: The British Crime Survey (BCS) waves refer to calendar years 1981, 1983, 1987, 1991, 1993, 1995 and 1999 (January–December). From 2001, the survey has run annually and figures refer to Apr-Mar. The survey is now called the Crime Survey for England and Wales (CSEW) The figures used in this chart are taken from the ONS (Office for National Statistics) website and refer to all crimes covered by the surveys, excluding fraud and computer misuse

and far-sighted initiative ever undertaken by a British Government to develop strategies for tackling crime. The government also backed up its stated aim of promoting 'evidence-based' policy and practice by allocating 10 per cent of the original budget of £250 million to evaluation undertaken by external researchers – an unprecedented amount of research money in the UK crime and justice field. (Maguire 2004: 214)

The funding for the programme was made available following an assessment of the research evidence at the time of what was known about reducing offending (Goldblatt and Lewis 1998) and what more needed to be known. The reported findings helped inform the shape and spend of the programme, and accorded with the emphasis on widespread responsibility for crime prevention and partnership that had been embodied in the Crime and Disorder Act, the Home Office Circulars that preceded it and the Five Towns Initiative and Safer Cities Programme (Gilling 1994). The idea of the research and innovation aspect of the programme looked sensible: Develop promising innovations, trial them with systematic evaluation, abandon those that fail to deliver the anticipated benefits, and build on those that achieved success.

By all previous standards for crime prevention, the CRP was a hugely ambitious enterprise. It was to include both original research and practice rooted in evidence of what had already been found effective. Table 1 shows the allocation across all 20 streams. By far the largest funding allocation was to CCTV, for which evidence was not strong although it was very popular at the time. It accounted for £169 million of the projected funding. The research community was excited by the research and evaluation aspects of the programme, which by British standards involved exceptionally high levels of funding.

In the event, the CRP turned out overall to be a disappointing failure. There are numerous accounts of this failure both from commentators involved in one way or another with it (for example Hope 2004; Hough 2004; Laycock and Webb 2003; Maguire 2004; Raynor 2004; Tilley 2004) and from a commissioned evaluation of the programme as a whole (Homel et al. 2004).

As indicated, the programme ended sooner than expected despite initial optimism. Its spend, while it lasted, was also much lower than planned. In Year One £60 million was allocated, in Year Two £160 million and in Year Three £180 million. However, only 13% of the budget was spent in Year One rising to 62% in Year Two and 83% in Year Three (Homel et al. 2004: 49).

What went wrong? We note here three main points that emerge from the literature on the programme. First, too much was expected from the CRP too soon. It turns out (in retrospect unsurprisingly) not to be possible to work out needs based on evidence, devise plausible strategies to meet those needs, write coherent proposals, assess them, refine them, agree them, recruit the necessary staff with the right skills, put in place arrangements for systematic evaluation, set in motion provisions for robust implementation, run them long enough to secure robust findings, write up the findings and then act on them within the projected timescales. It all takes time if done properly. If not done properly, waste and disappointment follow. Three years was not long enough. Moreover, in retrospect the idea that £60 million could be spent sensibly in the first year looks absurd. But the fact that nothing like that amount was spent was frustrating

Table 1 Streams in the Crime Reduction Programmes. *Source*: Tilley (2004): 263

Initiative	Projects	Total allocated	Use of funding
CCTV	683	£169,000,000	For funding schemes nationally
Targeted Policing	60	£30,000,000	For helping the police to develop and implement a problem-oriented approach
Reducing domestic Burglary	246	£24,000,000	For targeting neighbourhoods in England and Wales with high burglary rates
Drug Arrest Referral schemes	1	£20,000,000	For the development of face-to-face arrest referral schemes that aim to impact upon drug-related offending in England and Wales
Treatment of Offenders	1	£14,362,000	For a range of initiatives to develop effective practice in working with offenders
Effective School Management	38	£10,330,000	To integrate approaches to improving schools' management of pupils' behaviour and reducing truancy and exclusion
Violence Against Women	58	£9,655,000	To fund projects on domestic violence, rape and sexual assault
Youth Inclusion	70	£8,620,000	For Youth Inclusion schemes
Locks For Pensioners	1	£8,000,000	For improvements to home security for pensioners living in low-income households in neighbourhoods suffering high domestic burglary rates
Neighbourhood Wardens	85	£6,000,000	To develop a strategy for neighbourhood renewal
Vehicle Crime	13	£5,218,000	For improvements to vehicle licensing and registration systems
On Track	26	£4,390,000	To identify and assist children and families at risk of getting involved in crime
Sentencing	3	£3,900,000	To develop the evidence base for sentencing and enforcement practices
Summer Play Schemes	147	£3,600,000	For diversion schemes during school holidays in low-income areas
Design Against Crime	4	£1,570,000	To encourage crime-resistance in the planning and design of goods services and buildings
Distraction Burglary Projects	3	£1,010,000	For projects aimed at reducing distraction burglary amongst the elderly
Distraction Burglary Taskforce	1	£1,000,000	For staffing of dedicated policy team to reduce distraction burglary
Tackling Prostitution	11	£871,000	For local agencies working within a multi-agency context to implement local strategies for reducing prostitution-related crime and disorder

to politicians and policymakers. Second, the research community in Britain lacked the capacity to deliver the research side of the programme. The criminological and evaluation communities in the UK were too small to meet the demand and there was not time to build capacity. Moreover, results of social science research are seldom unequivocal and there are (and were) debates over the methodology to be used and over the robustness of specific findings that were reported. On the whole instant robust research with unequivocal findings in social science is rare. Third, agendas move on, new political imperatives arise, new ministers arrive and priorities change and the 'implementation failure' could not be tolerated. The Crime Reduction Programme was lost.

It would be remiss not to acknowledge some achievements. While it is the case that some good research providing useful findings came out of the programme, there was not a large volume of it. Stanko (2004), for example, reports as one example, research that was funded towards the end of the programme and that was not so much about testing interventions to find out what worked in reducing hate crime and domestic violence, but rather focused on evidence about attributes of those types of offence that could be drawn on in working out what to do.

The National Policing Improvement Agency and College of Policing

The NPIA was set up following the Police and Justice Act 2006 and came into existence on 1 April 2007. Its abolition came with the Crime and Courts Act of 2013.

One of NPIA's roles had been that of identifying, developing and promulgating good practice in policing. Much of this was later transferred to CoP. Specifically, CoP, which was also established in 2013, took over the training and development roles that had been within the remit of NPIA. This has been understood to include the use of research to develop an evidence-based approach to policing.

The CoP website refers to three complementary functions (http://www.college.police.uk/About/Pages/default.aspx, accessed 23 June 2018):

- 'Knowledge—we develop the research and infrastructure for improving evidence of "what works". Over time, we will ensure that policing practice and standards are based on knowledge, rather than custom and convention.
- Education—we support the development of individual members of the profession. We set educational requirements to assure the public of the quality and consistency of policing skills and we facilitate academic accreditation and recognition of our members' expertise.
- Standards—we draw on the best available evidence of 'what works' to set standards in policing for forces and individuals…'

CoP itself has been dedicated to professionalising policing in the UK, which includes making it more evidence-based. They state on their website that, 'A fundamental development within the College is the use of knowledge and research to develop an evidence-based approach to policing'.

What Works Centre for Crime Reduction

There is as yet little literature explaining the What Works Centre for Crime Reduction and its associated research programme, so we describe them here in some detail.

The What Works Centre for Crime Reduction (WWCCR) was established in 2013 and lodged in the College of Policing. It was one of five early What Works Centres that had been set up following a Cabinet Office initiative. These centres focused on Education, Local Growth, Health and Social Care, and Early Intervention as well as Crime Reduction. By 2018, there were five more What Works Centres: three covered new areas—Wellbeing, Ageing, and Children's Social Care, and the remaining two related specifically to Scotland and Wales. The idea of the What Works Centres was to help decision-makers come to better decisions in cost-effectiveness terms. The risk of allocating resources to ineffective or counterproductive measures or less efficient methods than others, to achieve given objectives, could be reduced by brigading the most robust evidence available on what works.

The What Works Centres began by prioritising randomised controlled trials (RCTs) as the key method for discovering what works. Looking across the findings of studies that met the exacting standards of RCTs and synthesising them promised a route to cataloguing the effectiveness of interventions that might be considered by decision-makers. This approach was informed by the long-standing National Institute for Health and Care Excellence (NICE), which was deemed a success and was initially cited as the model on which new Centres should be based. The focus on RCTs on which NICE guidelines had been built was heavily influenced by the huge numbers of drug trials paid for by the pharmaceutical companies. It was not necessarily the most appropriate methodology for the new Centres and in any case NICE had long since broadened its criteria for assessing what works. Current guidance from the Cabinet Office states that:

> Though we still have a long way to go, the What Works approach, and the more robust methods on which it is founded – such as the use of randomised controlled trials (RCTs) and the more systematic analysis of what is working where, and why – is rapidly becoming the new normal. (Halpern 2018)

Soon after the WWCCR was established and based in the CoP, the Economic and Social Research Council (ESRC) and CoP funded the "What Works Commissioned Partnership Programme: 'University Consortium for Evidence-based Crime Reduction'", the start date of which was 1 September 2013. The grant ran initially till 31 August 2016 but an extension and supplementary grant meant that it was not finished until 31 March 2018. The amount spent ran to over £3.2 million, a small fraction of what had been spent on the Crime Reduction Programme, but still substantial by social science standards.

The consortium was led by UCL, but also included Birkbeck College, Cardiff University, the Universities of Dundee, Glasgow, Southampton and Surrey, The Institute of Education (later incorporated into UCL) and The London School of Hygiene and Tropical Medicine. There were nine 'Work Packages' (WPs), as shown in Table 2.

Table 2 Work Packages included in the Crime Reduction What Works Commissioned Partnership Programme

Work Package	Description
1	A comprehensive listing of existing systematic reviews on crime reduction topics, mapped by topic area
2	A series of 12 new systematic reviews on key topics carried out over the 3 years of the programme
3	A comprehensive labelling scheme, using a consistent evaluation standard, to rate and rank the effectiveness of interventions and cost savings
4	Application of the criteria in WP3 to each systematic review
5	Developing guidance for practitioners on costing interventions
6	The design of a police development programme on evidence appraisal for the profession
7	Deliver a pilot of WP6
8	Primary research in light of key gaps and evidence needs
9	Testing the impact of the What Works Centre: An independent evaluation

WP1 involved an exhaustive and international search of the literature for *systematic* reviews, where the term systematic refers both to the systematic search for studies that meet minimum methodological standards and the use of standards that meet or approach those of RCTs. This prioritised studies that avoid bias and which achieve internal validity. Bias can occur where data are collected or interpreted selectively (even if that selection is unconscious). It is typically achieved by random assignment (rather than selecting the most promising cases for treatment) and by blinding the providers, receivers and data analysts as to membership of the treatment and control groups. Internal validity is achieved when alternative explanations for change are ruled out, ideally by randomising allocation to treatment and non-treatment groups to ensure that only exposure to the treatment in the one group can account for any observed difference in outcome between groups.

WP2 involved 12 fresh systematic reviews focusing on interventions that were missing or ripe for review according to WP1, and agreed with the College of Policing, but using a combination of the Campbell Collaboration approach which prioritises RCTs and their close cousins and a realist approach which is concerned with how and where initiatives might work, and amongst whom (Pawson and Tilley 1997; Pawson 2006).

WP3 created a scheme to code findings for types of evidence that would be useful for decision-makers drawing on research that could improve what they do. This embraced the concerns over robust and unbiased estimates of effect size that are aimed for in RCTs, but included evidence that speaks to other factors that decision-makers need to consider in coming to sensible conclusions. These other factors included the mechanisms through which interventions produced intended and unintended effects, the contextual conditions for the activation of mechanisms generating the outcome patterns, findings relating to the implementation challenges for putting the intervention in place, and the economics of the intervention in terms of costs and benefits. The acronym EMMIE was used to capture these, EMMIE referring

to Effects, Mechanisms, Moderators (i.e. context), Implementation and Economics (Johnson et al. 2015). The decision maker needs evidence relating to all of these in order to come to an informed view as to whether or not to adopt a given intervention.

In the event, existing reviews identified in WP1 reported relatively little on evidence other than that relating to effects. Moreover, freshly undertaken reviews conducted under WP2 found few individual primary studies that covered all elements of EMMIE or suites of studies that reported compelling evidence across the board. Adequate economic evaluations were especially rare. A table showing the findings for individual reviews, in terms both of coverage adequacy and findings, is located at: http://whatworks.college.police.uk/toolkit/Pages/Toolkit.aspx, accessed 23 June 2018. Further details behind the table can be found by clicking the relevant buttons at the same web page.

WP5 produced a book explaining forms of economic analysis (Manning et al. 2016) and guidance on how to do them as well as an Excel-based tool ('The Manning Tool') for conducting economic analyses, which can be downloaded from http://csrm.cass.anu.edu.au/research/projects/manning-cost-benefit-tool. This tool was designed to support improved economic analyses in the future.

WP6 and WP7 were about training rather than research, but did find the police understanding and use of research-based evidence to have been quite weak. WP9 assessed the impact of the What Works Centre for Crime Reduction and the Commissioned Partnership Programme to determine whether they had appropriately engaged key stakeholders, produced tools and guidance that stakeholders find clear and easy to use, and improved stakeholder understanding and application of evidence. It included a study of changes in police attitudes towards and use of evidence between the beginning and end of the programme. It found interest and involvement in research to have grown between 2014 and 2017 alongside closer relationships with universities, although these could not, of course, be attributed solely to the College of Policing in general or the What Works Centre in particular. The changes that were identified took place alongside growing numbers of collaborations between police services and universities, which had been fostered and supported by the British Home Office and College of Policing.

Whilst the other work packages did not involve primary research to build the knowledge base for crime reduction, that was not the case with WP8, some projects within which did lead to new knowledge. Those funded for WP8, at Cardiff University, had a fairly open agenda. They proposed projects that were agreed by the College of Policing. One project focused on *Behavioural Crime Prevention: Using Nudges, Tugs and Teachable Moments in Crime Prevention Communications* (briefing note available at: https://static1.squarespace.com/static/51b06364e4b02de2f57f d72e/t/58d105e2b8a79b66178971da/1490093541766/Nudge+BCP+60+Secon d+Briefing.pdf, accessed 23 June 2018). The project was rooted in the behavioural change literature, notably Thaler and Sunstein's *Nudge* (2009). This project trialled a variety of different communication strategies, through eight films with victimisation scenarios based on real-life events varying the sources of the advice (the messenger), the behavioural change trigger being invoked (the mechanism) and the contents of the information (the message). The films were shown to 1064 members of the public in different combinations, after which members of the audience were asked

'questions about their cognitive, affective and potential behavioural responses to the films' (UPSI 2018, p. 1). The most influential films were found to be those based on crime experience, emphasising emotional impact. Moreover, showing was more effective than telling. Films making people feel responsible and competent were found effective. Traditional messages made some frightened, vulnerable or angry and those made angry were unlikely to indicate they would change their behaviour.

These findings were then used to run a field trial at London Underground stations, where a cartoon cat ('Copcat') was used to front a campaign based on the earlier findings, to see whether this was more effective than traditional crime prevention campaigns. Observations, street questioning, social media analytics and a survey of staff at local businesses were used to find out what people remembered from the messages and how they felt about them. Overall recall was similar for traditional and CopCat campaigns although the CopCat one generated less fear and anger. (A brief summary can be found at http://whatworks.college.police.uk/About/News/Pages/CopCat.aspx, accessed 27 June 2018.)

What are we to make of the WWCCR and in particular the associated research programme as a vehicle for getting research relating to crime prevention into policy and practice? The work packages, following the ethos of the time, were framed around the need for systematic reviews of research evidence, adopting the Campbell Collaboration approach, which tends to give primacy to research using particular methodologies focussing on internal validity. This necessarily restricts the studies that are included and the conclusions that can be drawn. However, in the new reviews conducted under WP2, it was possible to be far more inclusive: here realist synthesis, which draws on studies using diverse research methods, was combined with systematic review methods, which prioritise RCTs and their close counterparts (see, for example, Sidebottom et al. 2017, 2018). The evidence base drawn on has widened yet rigour is still emphasised, and the priority once attached to RCTs has softened. WWCCR has played a part in that softening process. Indeed an emerging What Works Centre for Children's Social Care looks likely to adopt EMMIE and the diverse evidence types drawn on as their framework for sorting and sifting what is known. Interestingly for a research contract, the inclusion of two work packages related to training the police was an important innovation nodding, as it did, to implementation threats. Similarly, the requirement to develop a tool for the translation of the research evidence into a user-friendly format again took into account the importance of communication between two communities accused of deafness (Bradley and Nixon 2009). In many respects, this initiative shows signs of learning from some of the earlier lessons. WP8 provided the opportunity for new and imaginative research, and the study referred to above building on nudges is a nice example, where the research was able to develop in accordance with emerging findings. WP5 has furnished much-needed guidance on improving economic evaluation.

It is not all good news however. The joint funding arrangements between the ESRC and the College of Policing, at least initially, caused some problems. The budgets were not flexible enough to allow a change of course mid-programme in relation to experience gained. The methodology was tightly specified for work package 1 although it was possible to take a broader view of the nature of acceptable evidence in carrying out work package 2. The tools for translating research into

practice were initially meant to focus upon effect size and cost and considerable discussion and persuasion was involved in changing this remit and allowing the development of EMMIE. Similarly, it was determined at a very early stage in the process that the final toolkit would be initiative based rather than problem based. This was a judgement call. In opting for initiatives, as was done, the College was following the tendency in the other what works centres of the time, to do so. Several members of the research team felt this was a mistake, arguing that the police (and others with a concern for crime prevention and community safety) are more interested in asking, 'how can I solve this problem effectively and ethically?', rather than 'does this initiative work?'. There were consequences of this decision for the process of negotiating topics for new reviews under work package 2 with, for example, the police saying that they wanted to know what to do about organised crime (a problem) which then had to be translated by the research team into an initiative (asset management was chosen) despite the fact that none of the evaluations of asset management were judged against reducing organised crime. Insofar as they had an 'outcome' it related to the amount of assets seized. WP8 shows the advantage of leaving scope for development within a research project. This kind of flexibility is important if research is to deliver good evidence.

Furthermore, although the structural proximity of the WWCCR to the College of Policing had the major advantage of increasing the likelihood of and ease with which the results of the work might be incorporated into police training (supported by work packages 6 and 7), the disadvantage is that the toolkit (and indeed the Centre) are closely associated with the police and as such are not naturally turned to by those in other agencies that have a responsibility or interest in crime prevention such as the probation and prison services, courts, local authorities, other public sector agencies and of course the private sector.

Notwithstanding these potential drawbacks, and they are not intended to be seen here as critical of the decisions made, which were themselves complex and called for some difficult judgements (there was little by way of evidence to support one option over another) the toolkit itself is increasingly becoming a source of reference. The College of Policing report that between February 2015 and June 2018, the toolkit and its associated pages have been viewed 188,251 times, with over 35,000 from January to June 2018. This is over 10,000 more views than the same period in 2017 and 17,000 more views than the same period in 2016. It has also been viewed from 18 major cities worldwide covering 12 countries.

Conclusion: assessment of progress and lessons learned

Since at least the 1980s, there have been attempts to increase the crime prevention knowledge base and integrate that knowledge into routine practice. In the past 20 years, the CRP and WWCCR comprise two major recent examples in the UK. The US report to Congress produced just over 20 years ago was an important forerunner (Sherman et al. 1997). The Campbell Collaboration stands as a global

movement also to bring robust evidence to policy and practice, including that related to crime.

The CRP promised much by way both of developing new knowledge on ways to prevent crime and on getting established knowledge acted on where it was needed. We have seen that it failed—a missed opportunity.

The evidence from surveys associated with work packages 6 and 9 from the What Works programme in Crime Prevention demonstrate that even within policing, where efforts to foster routine attention to relevant research evidence have been substantial in Britain, there seems to have been quite limited penetration.

Does this matter? Crime has fallen dramatically in the UK, as in most other western countries, over the past 20–30 years (Tseloni et al. 2010). Figure 1 shows the trend overall for England and Wales. The global falls seem to have much more to do with the use of security measures than police action (Farrell et al. 2014).

The police are traditionally seen as responsible for crime prevention, albeit their ability directly do so is very limited (Laycock and Tilley 1995). For the most part others have played and are likely in the future to play a much larger part in the prevention of crime. Several of those who are competent in Engstad and Evans' terms have assumed some responsibility and that assumption of responsibility at least in some cases has followed research-based action putting pressure on them (Engstad and Evans 1980). The improvement in the security of cars following the research-based Car Theft Index, which revealed the makes and models most stolen, is a case in point (Laycock 2004). Indeed, the whole process of responsibilisation, whereby those competent to prevent crime are encouraged to assume some responsibility, may be much more significant for crime prevention both in the UK and elsewhere than getting relevant local decision-makers to have a detailed understanding of the knowledge base (Tilley 2018). The arrival of cyber crime as a major problem is much more likely to be effectively addressed by those in the IT industry than public service practitioners.

Notwithstanding recognition that the police (and for that matter others in the criminal justice system) lack the competence directly to do much that has the potential to prevent many crimes, it remains the case that the police (and other parts of the criminal justice system) continue widely to be deemed to have primary responsibility for crime prevention. Moreover, in local conditions, they are well placed to understand local crime and community safety problems and to advise (and mobilise) others who are competent to act but may be reluctant to do so. For this, the police do need a secure knowledge base, relating to the analysis of crime problems for preventive purposes, and measures that may be taken to reduce those problems.

Crime problems are notoriously 'wicked'. They tend to be complex and the ability to do something is in the hands of many, most of whom have other priorities. They are also often open to many different kinds of approach. There is a pretty widespread consensus on this. Knowing what others need to do and getting them to do it is a major challenge for which responsible bodies need to be prepared. We have come to understand better the strategies that the police can use to persuade others to act in ways that will prevent crime even when they may not be minded to do so (Scott and Goldstein 2005).

Notwithstanding the limits on what they can do directly, the police remain a dedicated service whose main remit ever since Robert Peel has been the prevention of crime. This makes the CoP a natural hub for knowledge assembly (as in the WWCCR) and dissemination. It also makes the police the most obvious professional group to be bearers, users and purveyors of that knowledge, even where this needs to be acted on by third parties. Moreover, although we have been stressing in this conclusion the limits to what the police can do directly to prevent crime, they can certainly do a lot and there is growing evidence for what they can do, relating in particular to patrols targeted on hot spots (Sherman et al. 2014) and focussed deterrence (Kennedy et al. 2017). In both of these examples, theory and evidence have marched hand in hand as with the CopCat work referred to earlier, in all cases with much more to learn.

It remains to be seen how well CoP perform their roles in relation to the police and third parties. They face tough challenges both in embedding attention to research and evidence in a police body orientated to using it imaginatively in addressing local crime and community safety problems.

The efforts of CoP to kick start police-university partnerships appear to be a further step in the right direction (see Crawford 2014). Moreover, the spread of the rhetoric of 'evidence-based policing' and the formation in the UK (as well as many other countries) of Societies of Evidence-Based Policing may again be helping to create a climate where research and evidence are brought to bear routinely in policy and practice.

It might be argued that both the CRP and the WWCCR embody an unduly technicist approach to controlling crime. Indeed a recent chapter has referred somewhat disparagingly to an 'evidence-based variant of epistemic crime control' (Loader and Sparks 2017: 110) that 'neglect(s) the normative force of democratic procedures' (ibid: 111). The text goes on to aver that, 'In this respect, epistemic crime control risks becoming a form of technological governance that shuts down the space of public deliberation around crime by turning it into a terrain of competent knowledge, one which prioritises the search for order over uncertainties of democratic freedom.' (ibid). However, this bleak possibility is by no means entailed by evidence. Indeed, absent the painstaking, technically challenging and complex work of assembling, interpreting and analysing evidence relating to crime, deliberation on the control of crime will tend to turn on assumptions that are simply mistaken.

In practice, science itself comes close to exemplifying deliberative democracy, as conjectured in theoretical accounts and revealed in empirical study of the conduct of science (see Merton 1973; Collins 2017; Collins and Evans 2017). But the conditions for the production of science and associated technologies are very particular. We know of no-one concerned with bringing evidence to crime control who would wish to eschew democratic deliberation, nor is its exclusion either implicitly or explicitly implied. The methods of effective control that are identified are open to use in alternative political agendas (see Tilley 2016).

It would seem unwise to exclude evidence from public discussion, to eschew its careful collection, assessment and analysis, and to neglect findings that have survived the deliberative processes in the formation of scientific understanding of crime. None of this makes science infallible or the sole focus for democratic

discussion. However, as Harry Collins and Robert Evans have stressed democracies need science to emulate its methods and take account of its findings (Collins and Evans 2017). In this sense, whatever their practical flaws, both the CRP and the WWCCR have been welcome moves within the past 20 years, as is the case with cognate developments in other countries, especially where they reveal, rather than skate over, the complexities and contingencies involved in producing and applying the evidence. Distaining science, repudiating technical expertise, and embracing ignorance in our view does democracy and democratic discussion few favours!

Let us hope that in 20 years time we can look back on a golden period of effective, ethical and informed strategies to maintain a low crime, high community safety world.

References

Bradley, D., and C. Nixon. 2009. Ending the 'Dialogue of the Deaf': Evidence and Policing Policies and Practices. An Australian Case Study. *Police Practice and Research* 10(5–6): 423–435.

Collins, H. 2017. *Gravity's Kiss: The Detection of Gravitational Waves*. Cambridge, MA: The MIT Press.

Collins, H., and R. Evans. 2017. *Why Democracies Need Science*. Cambridge: Polity.

Crawford, A. 2014. Research co-production and knowledge mobilisation in policing: Some insights from innovations in police-university collaboration. In *Applied Police Research: Challenges and Opportunities*, ed. E. Cockbain and J. Knutsson. Abingdon: Routledge. **(Crime Science Series ISBN 978-0-415-74132-3)**.

Engstad, P., and J. Evans. 1980. Responsibility, Competence and Police Effectiveness in Crime Control. In *The Effectiveness of Policing*, ed. R. Clarke and J. Hough. Gower: Farnborough.

Farrell, G., N. Tilley, and A. Tseloni. 2014. Why the Crime Drop? *Crime and Justice* 43: 421–490.

Gilling, D. 1994. Multi-agency Crime Prevention in Britain: The Problem of Combining Situational and Social Strategies. *Crime Prevention Studies* 3: 231–248.

Goldblatt, P., and C. Lewis. 1998. *Reducing Offending: An Assessment of the Research Evidence on Ways of Dealing with Offending Behaviour*, vol. 187. London: Home Office. **(Home Office Research Study)**.

Halpern, D. 2018. Foreword in The What Works Team (2018), p. 4.

Homel, P., S. Nutley, B. Webb, and N. Tilley. 2004. *Investing to Deliver: Reviewing the Implementation of the UK Crime Reduction Programme*, vol. 281. London: Home Office. **(Home Office Research Study)**.

Hope, T. 2004. Pretend it Works: Evidence and Governance in the Evaluation of the Home Office Crime Reduction Programme. *Criminal Justice* 4(3): 287–308.

Hough, M. 2004. Modernisation, Scientific Rationalism and the Crime Reduction Programme. *Criminal Justice* 4(3): 239–253.

Johnson, S., N. Tilley, and K. Bowers. 2015. Introducing EMMIE: An Evidence Rating Scale for Crime Prevention Policy and Practice. *Journal of Experimental Criminology*. 11(3): 459–473.

Kennedy, D.M., M.A. Kleiman, and A.A. Braga. 2017. Beyond deterrence. In *Handbook of Crime Prevention and Community Safety*, ed. N. Tilley and A. Sidebottom. London: Routledge.

Laycock, G. 2004. The UK Car Theft Index: An Example of Government Leverage. In *Understanding and Preventing Car Theft*, ed. M. Maxfield and R. Clarke, 25–44. Monsey, NY: Criminal Justice Press.

Laycock, G.K., and N. Tilley. 1995. Implementing Crime Prevention Programs. In *Building a Safer Society: Crime and Justice, A Review of Research*, vol. 19, ed. M. Tonry and D. Farrington, 535–584. Chicago: University of Chicago Press.

Laycock, G., and B. Webb. 2003. Conclusions—The Role of the Centre. In *Crime Reduction and Problem-Oriented Policing*, ed. K. Bullock and N. Tilley, 285–301. Devon: Cullompton.

Loader, I., and R. Sparks. 2017. Penal Populism and Epistemic Crime Control. In *The Oxford Handbook of Criminology*, ed. A. Liebling, S. Maruna and L. McAra, 57–76. Oxford: Oxford University Press.

Maguire, M. 2004. The Crime Reduction Programme in England and Wales: Reflections on the Vision and the Reality. *Criminal Justice* 4(3): 213–237.

Manning, M., S. Johnson, N. Tilley, G. Wong, and M. Vorsina. 2016. *Economic Analysis and Efficiency in Policing, Criminal Justice and Crime Reduction: What Works?*. London: Palgrave Macmillan.

Mawby, R. 1999. Introducing the Journal. *Crime Prevention and Community Safety* 1(1): 7–9.

Merton, R. 1973. *The Sociology of Science: Theoretical and Empirical Investigations*. Chicago: University of Chicago Press. **(especially Part 3, and Chapter 13 in particular)**.

Pawson, R. 2006. *Evidence-Based Policy: A Realist Perspective*. London: Sage.

Pawson, R., and N. Tilley. 1997. *Realistic Evaluation*. London: Sage.

Raynor, P. 2004. The Probation Service "Pathfinders": Find the Path and Losing the Way. *Criminal Justice* 4(3): 309–325.

Scott, M.S., and H. Goldstein. 2005. *Shifting and Sharing Responsibility for Public Safety Problems*. Washington, DC: US Department of Justice, Office of Community Oriented Policing Services.

Sherman, L., D. Gottfredson, D. Mackenzie, J. Eck, P. Reuter, and S. Bushway. 1997. *Preventing Crime: What Works, What doesn't and What's Promising?*. Washington, DC: Office of Justice Programs.

Sherman, L.W., S. Williams, B. Ariel, L.R. Strang, N. Wain, M. Slothower, and A. Norton. 2014. An Integrated Theory of Hot Spots Patrol Strategy: Implementing Prevention by Scaling Up and Feeding Back. *Journal of Contemporary Criminal Justice* 30(2): 95–122.

Sidebottom, A., A. Thornton, L. Tompson, J. Belur, N. Tilley, and K. Bowers. 2017. A Systematic Review of Tagging as a Method to Reduce Theft in Retail Environments. *Crime Science* 6: 7.

Sidebottom, A., L. Tompson, A. Thornton, K. Bullock, N. Tilley, K. Bowers, and S. Johnson. 2018. Gating Alleys to Reduce Crime: A Meta-analysis and Realist Synthesis. *Justice Quarterly* 35(1): 55–86.

Stanko, E. 2004. Reviewing the Evidence of Hate: Lessons from a Project under the Home Office Crime Reduction Programme. *Criminal Justice* 4(3): 277–286.

Thaler, R.H., and C.R. Sunstein. 2009. *Nudge: Improving Decisions about Health, Wealth, and Happiness*. London: Penguin Books.

The What Works Team. 2018. *The What Works Network Five Years On* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/677478/6.4154_What_works_report_Final.pdf. Accessed 26 Sept 2018.

Tilley, N. 2004. Applying Theory-Driven Evaluation to the British Crime Reduction Programme. *Criminal Justice* 4(3): 255–276.

Tilley, N. 2016. Middle Range Radical Realism for Crime Prevention. In *What is to be Done About Crime and Punishment Towards a "Public Criminology"*, ed. R. Matthews, 89–122. London: Palgrave Macmillan.

Tilley, N. 2018. Privatising Crime Control. *Annals of the American Academy of Political and Social Science* 679: 55–71.

Tseloni, A., J. Mailley, G. Farrell, and N. Tilley. 2010. The Cross-National Crime and Repeat Victimization Trend for Main Crime Categories: Multilevel Modeling of the International Crime Victims Survey. *European Journal of Criminology* 7(5): 375–394.

UPSI. 2018. *Behavioural Crime Prevention: Using Nudges, Tugs and Teachable Moments in Crime Prevention Communications*. 60 Second Briefing. Cardiff University: Universities' Police Science Institute.